



City of New York
Department of Environmental Protection
Bureau of Engineering Design & Construction

MONTHLY PROGRESS REPORT

August 2021

for

Administrative Settlement Agreement and Order
for Remedial Design, Removal Action and Cost Recovery
(Index No. CERCLA-02-2016-2003),

Administrative Order for Remedial Design
(Index No. CERCLA-02-2014-2019),

Administrative Order for Removal Action
(Index No. CERCLA-02-2019-2010),

and

Administrative Order for Remedial Action, Removal Action and Design,
(Index No. CERCLA 02-2021-2019)

Dated: September 16, 2021

Table of Contents

Table of Contents	ii
1.0 NYC Gowanus Superfund Program Status Update	1
1.1 Red Hook CSO Facility	1
1.2 Owl's Head CSO Facility	6
1.3 Carroll Street High Level Storm Sewer Pilot and Monitoring Program.....	9
1.4 First Street Turning Basin Restoration Design	10
1.5 Pilot Sponge Park.....	10
1.6 In-Canal Remedial Design	11
1.7 Owl's Head Bulkhead Design.....	11

List of Tables

Table 1 - Red Hook CSO Facility - Milestone Status Summary.....	2
Table 2 – Owl's CSO Facility - Milestone Status Summary.....	7
Table 3 – Owl's Head Bulkhead - Milestone Status Summary.....	12

1.0 NYC Gowanus Superfund Program Status Update

1.1 Red Hook CSO Facility

The City of New York (City) and the United States Environmental Protection Agency (EPA) entered into an Administrative Settlement Agreement and Order for Remedial Design, Removal Action and Cost Recovery (Index No. CERCLA-02-2016-2003) (Settlement Agreement), which became effective June 9, 2016. The Settlement Agreement provides that the City shall complete the Remedial Design (RD) for the Red Hook Combined Sewer Overflow (CSO) retention tank, which was selected as a component of the remedial action for the Gowanus Canal Superfund Site in EPA's September 27, 2013 Record of Decision (ROD). The RD of this CSO Tank, designated the "RH-034 Tank," was previously a requirement of an EPA Administrative Order issued May 28, 2014 (Index Number CERCLA-02-2014-2019) (RD UAO). On March 29, 2021, EPA issued an Administrative Order for Remedial Action, Removal Action and Design, (Index No. CERCLA 02-2021-2019) and is effective as of June 30, 2021. A summary of all milestones and the status of each is set forth below, followed by a narrative description of work performed and anticipated and related issues.

TABLE 1 - RED HOOK CSO FACILITY - MILESTONE STATUS SUMMARY

Milestone Description	Deadline (Completion date if completed)	Status
Index No. CERCLA-02-2016-2003		
<i>Commence Environmental Impact Statement (EIS)</i>	<i>April 1, 2016</i>	<i>Completed</i>
<i>Issue Draft EIS/Certify ULURP</i>	<i>October 1, 2017</i>	<i>Completed</i>
<i>Complete ULURP</i>	<i>April 16, 2018</i>	<i>Completed</i>
<i>File Petition to Condemn</i>	<i>May 31, 2018</i>	<i>Completed</i>
<i>Acquire Title</i>	<i>October 31, 2018</i>	<i>Completed</i>
<i>Complete CP-1 Design Package</i>	<i>June 30, 2017</i>	<i>Completed</i>
<i>Complete CP-02 Design Package</i>	<i>April 30, 2019</i>	<i>Completed</i>
<i>Complete CP-03 Design Package</i>	<i>September 30, 2019</i>	<i>Completed</i>
<i>Issue Notice to Proceed (NTP) to Contractor for CP-1</i>	<i>Not later than five months after acquisition of Parcels VI and VII, but in any event not later than May 1, 2020</i>	<i>See below</i>
<i>Mobilize for CP-1</i>	<i>Not later than 60 days after CP-1 NTP or 60 days after acquisition of Parcels VI and VII, whichever is later</i>	
<i>Complete CP-1 Construction</i>	<i>No later than 10 months after commencement</i>	
<i>Commence procurement to perform a response action at Parcels VI and VII within the footprint of the RH-034 Tank and any associated conduit areas</i>	<i>No later than the date on which National Grid commences response action on Parcels VI and VII outside the RH-034 Tank footprint</i>	
<i>Complete procurement for response action contractor</i>	<i>Within 12 months of commencement</i>	
<i>Perform a response action at Parcels VI and VII within the footprint of the RH-034 Tank and any associated conduit areas</i>	<i>Issue NTP within 30 days of completed National Grid response action; or within 30 days of completion of procurement, whichever is later</i>	
<i>Complete response action construction</i>	<i>Within 24 months of NTP</i>	
Index No. CERCLA-02-2021-2010		
<i>Complete CP-2 work</i>	<i>December 31, 2026</i>	
<i>Complete CP-3 procurement</i>	<i>April 30, 2026</i>	
<i>Commence CP-3 work</i>	<i>July 1, 2026</i>	
<i>Complete CP-3 work and commence operations</i>	<i>March 31, 2029</i>	

Work Performed Last Period

- DEP and New York City Department of Housing, Preservation and Development (HPD) are providing property management and relocation benefits administration services to the tenants at 234 Butler and 242 Nevins Streets. Eviction proceedings were put on hold due to the COVID-19 pandemic, however all tenants are anticipated to vacate the property in September 2021.
- DEP continued design efforts for CP-2 and CP-3 revisions related to the reconstruction of the 234 Butler Street building facades.
- DEP awarded the CP-1 construction contract on August 16, 2021 to Gramercy Group.
- The CP-1A construction contract was bid on July 8, 2021 and DEP is currently evaluating the low bid.
- DEP drafted work plans and Job Hazard Analyses (JHAs) for the upcoming geotechnical investigation at Parcel 6/7.

Field Activity

- None

Analytical Data

- None

Anticipated Progress Next Period

DEP will:

- Continue to advance CP-1 and CP-1A procurement.
- Continue design effort for CP-2 and CP-3 revisions related to the reconstruction of the 234 Butler Street building facades.
- Continue to provide property management and relocation benefits administration services through HPD.
- Submit work plans for geotechnical investigation to EPA and mobilize.
- Submit the CP1 construction contract to the NYC Comptroller for registration.

Issues Encountered or Resolved and Efforts to Mitigate Delays

Below is a list of issues encountered during the design, including unresolved technical issues that could impede progress and potentially delay the schedule for the RH-034 Tank RD. If left unresolved, these issues could have a significant impact on the project schedule. A description of each issue, potential schedule impacts, efforts to mitigate delays and recommendations for resolution are provided below.

- **Sequencing of National Grid Response Action**

The Settlement Agreement specifies work to be performed by National Grid, including but not limited to performing a Response Action at Parcels VI and VII outside the footprint of the tank. On May 11, 2017, EPA issued a Unilateral Administrative Order to National Grid (NG UAO) for the construction of a bulkhead along the Canal (including Parcels VI and VII), to design and build a permanent groundwater treatment system behind the bulkhead and to propose a work plan for the remediation outside the tank footprint at Parcels VI and VII.

Failure to coordinate the design of a future groundwater treatment system or remediation

construction and/or operations would bring about significant coordination and sequencing challenges causing delays and/or inability to implement Response Actions at Parcels VI and VII.

According to the 95% design of the cutoff wall submitted to EPA by National Grid in May 2018, National Grid will install upland anchoring systems within the 50 foot setback area, outside the footprint of the tank along the Canal. To prevent impacts to the integrity of the wall and support, allowable future construction activity within this space will be very limited, likely precluding National Grid from performing additional investigation work or any remediation outside the footprint in Parcels VI and VII. Pre-design investigation activities indicate that source material is present in the upper 20 feet of the soil. By letter dated August 21, 2018 DEP advised EPA of these issues and stated that DEP's obligation to perform a removal action within the tank footprint does not arise unless and until Grid performs a removal action of the area outside the RH-034 tank footprint to EPA's satisfaction.

- **Scope and Design of Groundwater Treatment System**

The May 11, 2017 NG UAO requires National Grid to design and build a permanent groundwater treatment system, but does not specify whether an active or passive system is to be utilized. The 95% Design Report prepared by GZA on behalf of National Grid, dated May 2018, includes a passive system designed to provide hydraulic relief and ensure wall stability. The design includes precast vaults to collect sediment and oils. DEP received the drawings on May 31, 2018, has reviewed the plans, and notified National Grid of potential conflicts that could impact DEP's design, construction and/or operations of the RH-034 tank, outfalls, and public accessible open space area.

National Grid and DEP's Bureau of Water and Sewer Operations met on September 11, 2018 to discuss the design and BWSO's comments. GZA provided responses to those comments on December 5, 2018. DEP has requested hard copies from National Grid. As of December 2018, DEP awaits an updated submittal from National Grid. Continued coordination is required to ensure conflicts are avoided during construction and for future operations and maintenance of the groundwater treatment system and DEP facilities.

- **Coordination with Design of Cut-off Wall**

At the July 20, 2016 technical workshop, EPA directed DEP to proceed with design of the RH-034 Tank assuming a 50-ft setback from the existing Canal bulkhead. In order to meet the milestones set forth in the Settlement Agreement, DEP continues to advance the design based on this direction and continues to move forward with the CSO tank design as established in the Basis of Design Report (BODR).

- On March 29, 2018, DEP transmitted the draft 30% design drawings for RH-3 Outfall RH-038 to National Grid for coordination. On May 31, 2018, GZA transmitted the 95% design of the cutoff wall to EPA. DEP received this transmittal, identified several concerns, and requested additional information from National Grid. National Grid provided a response to DEP on August 3, 2018 with performance requirements and construction constraints that do not accommodate DEP's CSO Facility construction. After reviewing this correspondence, DEP sent a letter to EPA documenting the concerns and coordination issues related to the cutoff wall design on August 21, 2018. DEP and EPA also discussed these concerns in a meeting on September 10, 2018. DEP has notified EPA that additional engineering analyses and design modifications by National Grid are required to ensure the final cut-off wall design is coordinated with the construction of the CSO facility and that the cutoff wall upland anchoring system does not conflict with the support of excavation, underground structures, outfalls, and aboveground features for the CSO tank. On December 4, 2018 EPA emailed DEP stating EPA has approved National Grid's May 2018 95% Design for the Barrier Wall. EPA also provided an updated tolerance evaluation for wall movement for the Barrier Wall. Upon review of this updated tolerance evaluation, DEP responded in a letter dated December 21,

2018. DEP's letter reiterates DEP's concerns related to National Grid's Tolerance Evaluation and other unresolved conflicts with the design of the CSO tank. At National Grid and EPA's request, DEP sent the 60% design packages for RH3 CP-2 and CP-3 to EPA and National Grid on January 9, 2019. On January 15, 2019, DEP and National Grid met to discuss these coordination issues and National Grid's upcoming access needs for the Barrier Wall project. Per the January Monthly Progress report submitted by National Grid to EPA, DEP notes on January 23, 2019 National Grid provided to EPA the results of the updated wall movement tolerance evaluation. DEP has requested the report and a follow up meeting with National Grid. DEP has also completed the 3-D finite element analysis quantify expected barrier wall deflections associated with dredging activity and CSO tank construction. DEP shared these results with EPA at the February 28, 2019 meeting.

DEP maintains that any modifications to the established tank layout, dimensions and location would require re-work and cause delay.

On March 11, 2019 EPA informed DEP that the 100% design of the Barrier Wall was approved despite the design and design coordination issues raised by DEP.

- **Construction Package 1**

Construction Package 1 (CP-1) for demolition and site preparation at Parcels VI and VII was submitted to EPA on June 30, 2017. DEP legal review had been completed and the bid documents were scheduled to be advertised on September 24, 2018. On September 20, 2018, DEP notified EPA that it would postpone issuing the bid package as planned pending resolution of the 234 Butler Street issue. DEP informed EPA that a request for modification of the milestone date for CP-1 would likely be necessary. On multiple subsequent occasions, DEP submitted alternatives for building preservation, showing constructability and cost, and informed EPA that changes to the scope CP-1 could impact the schedule for mobilization and completion of the CP-1 construction work. On October 9, 2019 EPA directed DEP to proceed with the procurement of the CP1 construction contract, and asked for DEP to submit an expert's opinion on the practicability of reconstructing the facades using the existing brick as a veneer to a structural backup wall. On October 28, 2019 DEP responded to EPA stating that salvage of the brick is not practicable due to the unnecessary schedule implications. On October 31, 2019, EPA submitted comments on the CP3 90% design and directed DEP to salvage the existing brick and to revise CP3 90% design to include the reconstruction of the buildings facades as a veneer consistent with the rendering submitted with the CP3 90% design. DEP is currently evaluating the expected delay in the construction schedule due to this addition of scope and is preparing an addendum to CP-1 to include the additional requirements set forth in EPA's October 31, 2019 directive.

On April 22, 2020, DEP received a follow up letter from EPA's Regional Administrator regarding the preservation of 234 Butler Street. DEP is evaluating the impact of the additional scope of work required by EPA's letter on the CP-1 construction contract and the addendum, and is preparing a response.

- **Construction Package 1 – Cutoff Wall Construction Coordination**

The schedule for CP-1 construction is dependent upon acquisition of the properties. Per the Settlement Agreement, the CP-1 contractor shall commence work no later than five months after acquisition of Parcels VI and VII, and commence on-site mobilization within 60 days. The cutoff wall design shared on May 31, 2018 shows a work area that includes significant portions of Parcels VI and VII. These areas are noted to be required to support construction and for installation of a hydraulic relief system and dead man anchor system. If construction schedules for the cut-off wall and CP-1 overlap, coordination will be required to allow National Grid access to designated areas on the Parcel VI and Parcel VII properties without impacting the schedule and work of the CP-1 contract. DEP has included construction coordination information in the CP-1 documents.

- **COVID-19**

On March 25, 2020 NYC notified EPA of a Force Majeure event associated with the recent outbreak of the novel coronavirus (COVID-19) that has the potential to affect DEP's ability to meet all open construction milestones listed in Appendix A of the Order.

On June 3, 2020, DEP Commissioner Vincent Sapienza sent a letter to EPA Regional Administrator Peter Lopez notifying EPA of the dramatic impact caused by the COVID-19 pandemic on the City's and DEP's finances. As outlined in that letter, DEP is forecasting a budget shortfall of approximately one billion dollars between FY 2020 and FY 2024. Because of this projected shortfall and uncertainty concerning the City's request for federal and state funding, DEP is looking to identify large projects, such as the Red Hook CSO Facility, that feasibly could be delayed to allow more urgent and critical work to support DEP's operations to continue.

- On June 24, 2020, DEP met with EPA to discuss potential schedule relief from the Settlement Agreement and other orders. On July 6, 2020, DEP provided its proposed schedule to support the ongoing discussions on potential schedule relief from the Settlement Agreement and other orders. On July 28, 2020, EPA requested a schedule for all tasks related to the design and construction of the the RH-034 and OH-007 tanks, and the bulkhead construction for the Salt Lot/2nd Avenue Street end. On August 12, 2020, DEP provided its proposed schedule to support the ongoing discussions on potential schedule relief from the Settlement Agreement and other orders. EPA followed up on August 17th, requesting clarification on the budget breakdown and Owls Head CSO tank schedule. DEP provided a response on August 25th. On September 2, 2020, EPA responded to DEP's August communications indicating that potential schedule relief is still being evaluated, however, DEP must proceed with CP1 contract procurement without delay. DEP provided a response on September 16, 2020. EPA provided a follow up response on November 6, 2020. DEP and EPA project teams met on November 23, 2020. DEP provided a revised Tank design and construction program schedule and a follow-up meeting between EPA and DEP project teams was held on December 7, 2020. DEP and EPA met on January 19, 2021 to discuss EPA's proposed program schedule. A follow up meeting was held on January 29th, including DEP and EPA's respective technical teams.

1.2 Owl's Head CSO Facility

The design of the Owl's Head CSO Facility, designated the "OH-007 Tank," is a requirement of the RD UAO. The UAO requires the City to complete the RD for the Owl's Head CSO retention tank, which was selected as a component of the remedial action set forth in the ROD. On March 29, 2021, EPA issued an Administrative Order for Remedial Action, Removal Action and Design, (Index No. CERCLA 02-2021-2019). This Order is effective as of June 30, 2021. A narrative description of work performed and anticipated and related issues is set forth below.

TABLE 2 - OWL'S HEAD CSO FACILITY - MILESTONE STATUS SUMMARY

Milestone Description	Deadline (Completion date if completed)	Status
Index No. CERCLA-02-2021-2010		
OH-007 Tank RD		
<i>Complete Tank Design procurement</i>	<i>May 31, 2021</i>	<i>Completed</i>
<i>Submit to EPA Updated Basis of Design Report</i>	<i>August 30, 2021</i>	<i>Completed</i>
<i>Submit to EPA CP-1</i>	<i>May 31, 2022</i>	<i>Underway</i>
<i>Submit to EPA CP-2</i>	<i>May 31, 2023</i>	
<i>Submit to EPA CP-3</i>	<i>August 30, 2023</i>	
OH-007 Tank RA		
<i>Complete CP-1 procurement</i>	<i>May 31, 2023</i>	
<i>Commence CP-1 work</i>	<i>June 1, 2023</i>	
<i>Complete CP-1 work</i>	<i>June 1, 2024</i>	
<i>Complete CP-2 procurement</i>	<i>February 29, 2024</i>	
<i>Commence CP-2 work</i>	<i>March 1, 2024</i>	
<i>Complete CP-2 work</i>	<i>October 1, 2026</i>	
<i>Complete CP-3 procurement</i>	<i>April 30, 2026</i>	
<i>Commence CP-3 work</i>	<i>May 1, 2026</i>	
<i>Complete CP-3 work and commence operations</i>	<i>May 1, 2028</i>	

Work Performed Last Period

- DEP continued to advance the Uniform Land Use Review Procedure for selection and use of the City-owned parcel, and acquisition of the adjacent privately-owned parcels for the OH-007 Tank site. DEP submitted the Land Use Application and CEQR Technical Memorandum to the NYC Department of City Planning (DCP) on April 20, 2020. DEP certified into ULURP on May 3, 2021. The City Planning Commission Public Hearing took place on August 18, 2021.
- DEP submitted the final Basis of Design Report (BODR) on August 30, 2021 in accordance with the Order.

Field Activity

- None

Analytical Data

- None

Anticipated Progress Next Period

DEP will:

- Continue to coordinate with DSNY on design considerations for coordination with the new CSO

Facility Design and to advance the ULURP for site selection and acquisition of the properties.

- Continue coordination efforts with the private property owners at the OH-007 site (Block 990, Lot 1; Block 990, Lot 16; Block 990, Lot 21; Block 977, Lot 1) to obtain access to collect existing conditions data and perform other field investigations in the coming months.
- Coordinate access with DSNY to perform a geotechnical investigation at the salt lot. Work is expected to start in early Spring 2022.
- Await comments from EPA on the BODR.
- Start the detailed designs for CP2 and CP3.

Issues Encountered or Resolved and Efforts to Mitigate Delays

Below is a list of issues encountered during the design, including unresolved technical issues that could impede progress and potentially delay the schedule for the OH-007 Tank RD. If left unresolved, these issues could have a significant impact on the project schedule. A description of the issue, potential schedule impacts, efforts to mitigate delays and recommendations for resolution are provided below.

- **Unilateral Administrative Order Remedial Design Completion Date**

The Administrative Order for Remedial Design, Appendix B – Tank and Turning Basin Statement of Work, Section V, states that the Remedial Design of the Retention Tanks and associated infrastructure in the vicinity of the RH-034 and OH-007 CSO outfalls shall be completed no later than three (3) years from the Effective Date of the Order.

In 2016, DEP and EPA set new design milestones specifically for the Remedial Design at the RH-034 outfall in the Administrative Settlement Agreement and Order for Remedial Design, Removal Action and Cost Recovery. DEP and EPA have not negotiated achievable milestones for the Remedial Design at the OH-007 outfall. As indicated to EPA on multiple occasions, DEP will not meet the milestone date for the OH-007 outfall set forth in Appendix B of the Unilateral Order.

- **COVID-19**

On March 25, 2020 NYC notified EPA of potential Delay in Performance of requirements of the AO associated with the recent outbreak of the novel coronavirus (COVID-19).

On June 3, 2020, DEP Commissioner Vincent Sapienza sent a letter to EPA Regional Administrator Peter Lopez notifying EPA of the dramatic impact caused by the COVID-19 pandemic on the City's and DEP's finances. As outlined in that letter, DEP is forecasting a budget shortfall of approximately one billion dollars between FY 2020 and FY 2024. Because of this projected shortfall and uncertainty concerning the City's request for federal and state funding, DEP is looking to identify large projects, such as the Owls Head CSO Facility, that feasibly could be delayed to allow more urgent and critical work to support DEP's operations to continue.

- On June 24, 2020, DEP met with EPA to discuss potential schedule relief from the Settlement Agreement and other orders. On July 6, 2020, DEP provided its proposed schedule to support the ongoing discussions on potential schedule relief from the Settlement Agreement and other orders. On July 28, 2020, EPA requested a schedule for all tasks related to the design and construction of the the RH-034 and OH-007 tanks, and the bulkhead construction for the Salt Lot/2nd Avenue Street end. On August 12, 2020, DEP provided its proposed schedule to support the ongoing discussions on potential schedule relief from the Settlement Agreement and other orders. EPA followed up on August 17th, requesting clarification on the budget breakdown and Owls Head CSO tank schedule. DEP provided a response on August 25th. On September 2, 2020, EPA responded to DEP's August communications indicating that potential schedule relief is still being evaluated, however, DEP must complete the OH-007 CSO tank design contract procurement and proceed with

the design without further delay. DEP provided a response on September 16, 2020. EPA responded to ongoing discussions on potential schedule relief on November 6, 2020. DEP was directed to proceed with the procurement of the OH-007 design contract immediately. DEP and EPA project teams met on November 23, 2020. DEP provided a revised Tank design and construction program schedule and a follow-up meeting between EPA and DEP project teams was held on December 7, 2020. DEP and EPA met on January 19, 2021 to discuss EPA's proposed program schedule. A follow up meeting was held on January 29th, including DEP and EPA's respective technical teams.

1.3 Carroll Street High Level Storm Sewer Pilot and Monitoring Program

DEP will conduct a stormwater treatment pilot and monitoring program in connection with the Phase I Carroll Street High Level Storm Sewer Separation (HLSS) project at the Gowanus Canal. This program includes installation of two hydrodynamic separator units, evaluation of alternative treatment technologies, sampling and data collection, flow monitoring, data analysis, and reporting. It also includes similar sampling and data collection, flow monitoring, data analysis, and reporting for three vortex units installed at the Lightstone development, also known as 363-365 Bond Street.

Work Performed Last Period

- Phase 2 of construction began in Fall 2018 and is expected to be completed in 2021.

Field Activity

- The contractor continued excavation and installation of 24" RCP HLS Sewer on 3rd Ave between Dean and Pacific Streets. They also have excavated and offset the Con Edison's oil-o-static lanes at the intersection of 3rd Ave & Douglass Street. Contractor has exposed high pressure gas main for the National Grid. They will cut and cap that main which obstruct installation of boxed storm sewer on 3rd Ave between Douglass and Butler Streets. The contractor will continue support of JB utility partners for all necessary works.

Analytical Data

- None

Anticipated Progress Next Period

- Contractor will continue excavation and installation of 24" RCP HLS Sewer on 3rd Ave between Pacific Street and Atlantic Ave. The contractor will continue providing support to National Grid to cut and capped high pressure gas main on 3rd Ave between Douglass and Butler Streets and to JB utility partners for all necessary works.

Issues Encountered and Efforts to Mitigate Delays

- Contractor submitted a partial Time Extension request for additional 210 CCD, with the new date of the project completion on 04/27/2022. That request was due to additional works for Con Edison and National Grid which significantly exceeded the original bid scope and cost of work and duration of the project.

1.4 First Street Turning Basin Restoration Design

The design of the restoration of the former First Street Turning Basin is a requirement of the RD UAO. This design was selected as a component of the remedial action set forth in the ROD. A narrative description of work performed and anticipated and related issues is set forth below.

Work Performed Last Period

- None.

Field Activity

- None.

Analytical Data

- None.

Anticipated Progress Next Period

- None.

Issues Encountered and Efforts to Mitigate Delays

- None.

1.5 Pilot Sponge Park

DEP has installed a Pilot Sponge Park at the intersection of 2nd Street and the Canal. The pilot project is intended to divert and filter surface water runoff and create a publicly accessible open space. A narrative description of work performed and anticipated and related issues is set forth below.

Work Performed Last Period

- None

Field Activity

- None

Analytical Data

- None

Anticipated Progress Next Period

- DEP will continue drafting the final report for the Stormwater Technology Pilot and Monitoring Program.

Issues Encountered and Efforts to Mitigate Delays

- The monitoring team has noticed water from the Canal may be entering the Sponge Park through the check valve during high tide. This will be further investigated to determine if the valve needs to be repaired or replaced. In the meantime, any monitoring will take place during mid and low tides.

1.6 In-Canal Remedial Design and Remedial Action

Participation as a work party in the In-Canal Remedial Design is a requirement of the various UAOs. This design was selected as a component of the remedial action set forth in the ROD. The City continues to participate as a Work Party in the In-Canal Remedial Design and to coordinate potential remedial design interfaces with City property such as bridges, bulkheads and the 1st Street Turning Basin. A separate detailed monthly report for this work is issued by National Grid on behalf of the work parties.

Work Performed Last Period

- DEP coordinated with the In Canal Trust regarding shutdowns of the Gowanus Canal Flushing Tunnel necessary for In Canal activities including the upcoming sheeting cofferdam removal at the outlet of the Flushing Tunnel.

Anticipated Progress Next Period

- DEP and DOT will continue to coordinate on bridge and bulkhead design work as needed.

1.7 Owl's Head Bulkhead Design

Pursuant to the RA UAO, effective May 6, 2019, DEP is required to complete the design of the bulkhead upgrade at the City-owned Salt Lot parcel by January 1, 2021. On March 29, 2021, EPA issued an Administrative Order for Remedial Action, Removal Action and Design, (Index No. CERCLA 02-2021-2019). This Order is effective as of June 30, 2021. A summary of all milestones is included below.

TABLE 3 - OWL'S HEAD BULKHEAD - MILESTONE STATUS SUMMARY

Milestone Description	Deadline (Completion date if completed)	Status
Index No. CERCLA-02-2019-2010		
<i>Complete the bulkhead structural support designs for the NYCDOS Salt Lot at 6th Street and the end of Second Avenue</i>	<i>January 1, 2021</i>	<i>Completed</i>
Index No. CERCLA-02-2021-2010		
<i>Complete bulkhead procurement</i>	<i>December 31, 2021</i>	<i>Underway</i>
<i>Commence bulkhead construction</i>	<i>January 1, 2022</i>	
<i>Complete bulkhead construction sufficient to support dredging</i>	<i>December 31, 2022</i>	
<i>Complete final bulkhead construction</i>	<i>March 31, 2023</i>	

Work Performed Last Period

- DEP continued to advance the procurement of the bulkhead construction contract. DEP's Bureau of Legal Affairs approved the contract and it is currently under review by the City Law Department.
- DEP responded to the July 21 directive which required the implementation of pre-clearing activities to reduce encroachment into the canal and proposed modifications to the contract language on August 3rd, 2021. EPA accepted the revisions on August 4, 2021.

Field Activity

- None

Analytical Data

- None

Anticipated Work Next Period

- DEP will continue to advance the procurement of the bulkhead construction contract.
- DEP will continue coordination efforts with the property owner of Block 990, Lot 21 to assess the possibility of utilizing a portion of the parcel for construction staging during the bulkhead construction.

Issues Encountered and Efforts to Mitigate Delays

- DEP received initial comments from EPA on the bulkhead design on March 3, 2021. DEP provided responses on March 23, 2021. DEP received additional comments on June 9, 2021 requesting substantial modifications to the design. On June 22, 2021 DEP responded to explain that these changes would significantly impact the construction start and completion milestones if redesign is required and requested a workshop with EPA to further discuss these impacts. DEP received a directive on July 21, 2021 to implement pre-clearing activities in order to reduce encroachment into the canal. DEP proposed modifications to the contract language to fulfill this requirement and EPA accepted this response on August 4, 2021.